

Amendments to the Specification

- 1) Please insert the following subtitle at page 1, below the title:

Background

- 2) Please insert the following subtitle at page 2, line 35:

Summary

- 3) Please delete the text located at page 5, lines 9 through 14.

- 4) Please insert the following subtitle and text at page 5, line 15:

Brief Description of the Drawings

For a further understanding of the nature and objects for the present invention, reference should be made to the following detailed description, taken in conjunction with the accompanying drawings, in which like elements are given the same or analogous reference numbers and wherein:

- Figure 1 illustrates a schematic view of synthesis gas separation, as per one embodiment of the current invention; and
- Figure 2 illustrates a cryogenic separation apparatus capable of being incorporated in the embodiment illustrated in Figure 1.

- 5) Please insert the following subtitle after the above-inserted paragraphs:

Description of Preferred Embodiments

- 6) Please insert the following paragraph at page 7, line 23:

It will be understood that many additional changes in the details, materials, steps and arrangement of parts, which have been herein described in order to explain the nature of the invention, may be made by those skilled in the art within the principle and scope of the invention as expressed in the appended claims. Thus, the present invention is not intended to be limited to the specific embodiments in the examples given above.

- 7) Please replace the subtitle at page 7, line 1, with the following text:

CLAIMS What is claimed is:

- 8) Please insert the following subtitle and text to new page 11, line 1:

Abstract of the Disclosure

A method for simultaneously producing hydrogen and carbon monoxide by subjecting synthesis gas to a decarbonation in a decarbonation unit, and to desiccation in a desiccation unit. After the decarbonation and the desiccation, the remaining synthesis gas components are cryogenically separated and a hydrogen-enriched gas is recycled upstream from the decarbonation unit and downstream from synthesis gas producing unit.